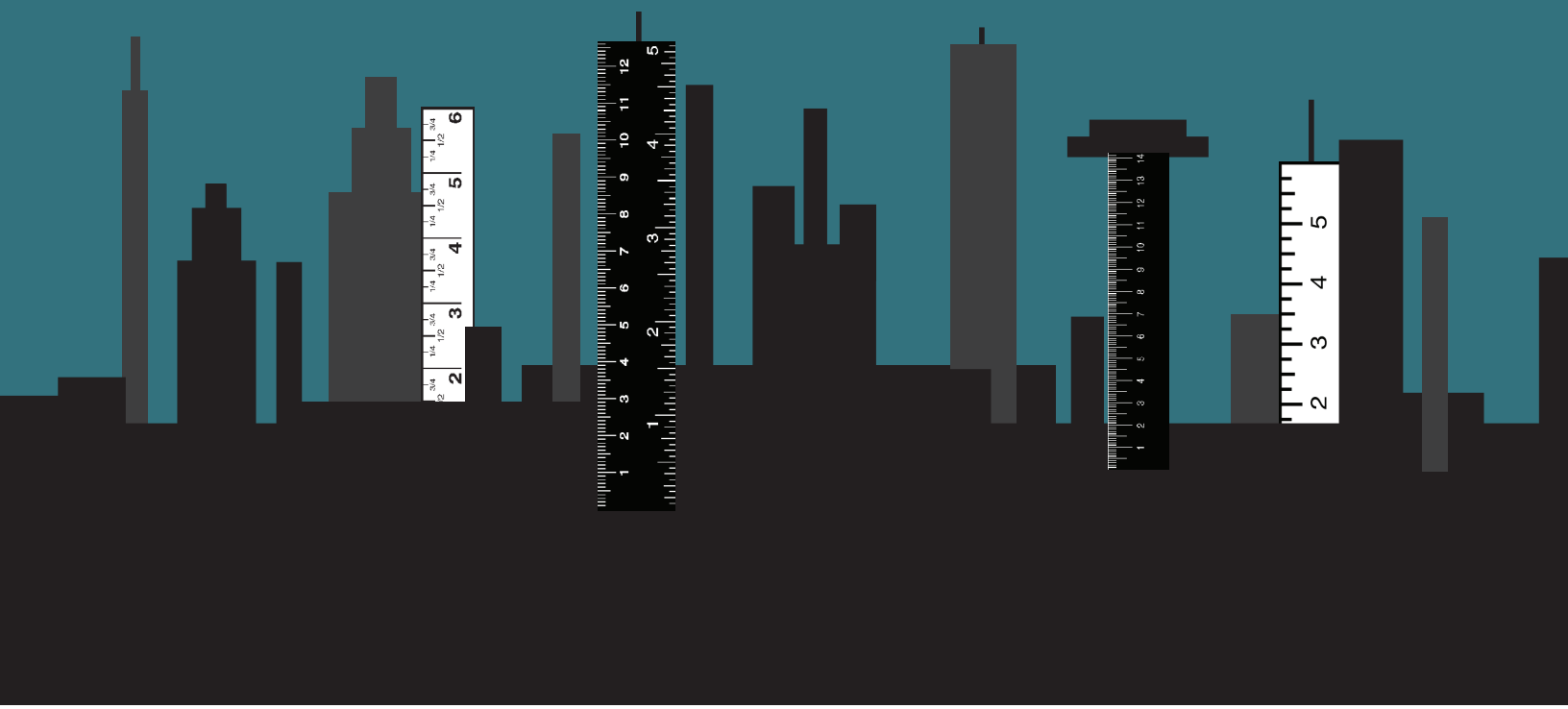
Office Building Benchmarking Guide

engaging the hard-to-reach



Developed by Fourth Sector Strategies in cooperation with StopWaste.org and the Cities of Berkeley, Boulder, Oakland, Salt Lake City, San Francisco, and San Jose

FOURTH SECTOR STRATEGIES

OFFICE BUILDING BENCHMARKING GUIDE

engaging the hard-to-reach

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Executive Summary

Building energy benchmarking uses data to measure how efficiently a building performs over time and how it compares to similar buildings. As an indicator of energy performance, benchmarking can drive up demand for energy efficiency. Buildings labeled more efficient can command higher rents, have lower vacancy rates, and result in higher property values. City-sponsored benchmarking programs can increase awareness of building energy performance as well as highlight opportunities for improving building efficiency. Because of this, benchmarking is considered an important element of comprehensive strategies to reduce a city's greenhouse gas emissions.

Most city benchmarking efforts have focused on larger, more visible or iconic buildings, such as high-rise, or Class A office buildings. Starting with large buildings allows for benchmarking a large percentage of a city's total building area with a relatively small number of buildings. However, small buildings often make up the majority of a city's building stock, especially in small and mid-size cities. These "hard-to-reach" buildings cannot be ignored, but owners and managers of such buildings often lack the resources of large or Class A buildings. They require different and more intensive outreach efforts and will be more effectively engaged if momentum is first generated with easier-to-reach sectors. Additionally, establishing relationships with hard-to-reach sectors through other city-sponsored programs will make it easier to solicit their participation in benchmarking efforts. Finally, a sales personality is more important than technical skill in outreach staff People who approach energy efficiency as a service to sell gain greater participation than those who assume the need or desire for energy efficiency already exists.

This guide draws on: 1) a comprehensive review of literature related to engaging hard-to-reach sectors in energy efficiency programs; 2) the experience of city sustainability staff captured through informal interviews; and 3) action research conducted in the San Francisco Bay Area to test and document various approaches.

Key Findings

I. ANALYZING THE MARKET

Selecting Building Data Sources

Tax assessor data should be used for tracking compliance with mandatory policies; however, CoStar is helpful for initial program design. CoStar contains information such as owner concentration, building class, number of stories, LEED and ENERGY STAR® certification, geographic information like latitude and longitude and business district, and owner and property management contact information, including addresses and phone numbers.

Conducting a Building Inventory

A building inventory helps with setting realistic goals and designing an effective program. Hire a data analyst to garner specific insights for your city.

II. DESIGNING YOUR PROGRAM

Implementation Strategy

Phase implementation to build momentum. Target larger buildings first, or, in cities comprised primarily of small buildings, target more visible or iconic buildings, including: government buildings; schools; historic buildings; and LEED or ENERGY STAR® certified buildings.

Program Types

Benchmarking competitions are more resource intensive than simple recognition programs, and the hard-to-reach prefer recognition programs over competitions.

Competitions that encourage a suite of green practices are helpful for engaging tenants, who may not see a role for themselves in benchmarking-only programs.

III. OVERCOMING BARRIERS

Messages

If a city or state ordinance is in effect, compliance is a strong motivator, especially for the hard-to-reach. Develop messages around compliance and other non-energy benefits of benchmarking to different stakeholders (i.e. owners, managers, and tenants).

Tailor marketing materials with the messages that your outreach partners want to deliver. Make it easy for your partners to help with outreach.

Messengers

Utilize internal and external free resources, including other city departments, local or regional utility providers (e.g. customer reps, bill and newsletter inserts, free training, etc.), and professional groups from the community.

Engage membership-driven organizations, such as BOMA and Chamber of Commerce. For the hard-to-reach, use a survey to identify other groups such as Business Improvement Districts or trade associations.

Marketing & Promotion

Utilize any free internal and external resources (messengers) for promotion (e.g. websites, print/e-newsletters and blasts, and utility bill insertions).

Direct mail and mass media are expensive and have limited value for voluntary programs.

Training & Resources

Provide varied training formats in different locations and at different times. Make training fun and allow for networking opportunities.

Offer a help-desk or other technical assistance. Technical assistance is the key to supporting the hard-to-reach.

One-on-One Engagement

One-on-one engagement is a critical element of any benchmarking program.

City staff, interns, trained professionals, or energy service providers can conduct outreach. Energy service providers can provide significant outreach support, but they typically do not engage potential clients until an ordinance is in effect.

Introduction

About this Guide

This guide is designed for cities seeking to develop or expand voluntary building energy use benchmarking programs. The guide is also of value to cities with benchmarking requirements that are seeking to engage owners and managers in hard-to-reach sectors, such as smaller buildings or Class B and C office buildings.

Sections build on each other sequentially. Along the way, "tips" and "time-checks" are provided for the key tasks identified. The guide assists with defining program scope, understanding and overcoming barriers, identifying appropriate outreach strategies based on available resources, and evaluating outcomes. The guide also provides a survey tool, data template, and sample marketing materials, as well as other resources.

This guide incorporates the findings of published program evaluations and best practice research as well as interviews with city staff (Arlington, Austin, Berkeley, Boulder, Chicago, Houston, Portland, Salt Lake City, San Francisco and Seattle) and utility program implementers administering benchmarking programs. We also conducted interviews with potential outreach partners from various sectors including local BOMA chapters, Chambers of Commerce, Business Improvement Districts, commercial real estate firms (property and asset management), and energy service providers. Additionally, we conducted telephone surveys, interviewing small (<50,000 square feet) Class B and Class C office building owners and property managers. Telephone surveys were conducted with small building owners and managers in Berkeley, Oakland, San Jose, San Francisco, Boulder, and Salt Lake City.

Why Encourage Benchmarking?

In the United States, the commercial and residential building sector accounts for approximately 40% of total energy consumption, more than either transportation or industry.[1] The percentage of energy use of buildings in cities can even be higher – up to 75%.[2] For commercial buildings, energy represents the single largest controllable operating expense, with energy expenditures averaging more than $2 per square foot.[3] Yet, according to the EPA, 30% of building energy is used inefficiently or unnecessarily,[4] providing significant opportunity for reductions in both energy use and carbon emissions. Thus, the building sector has become a central focus of many local climate action plans.

Over the past few years, energy benchmarking policies, as means to improve building efficiency, have been gaining traction in cities throughout the country. In 2010, New York City was the first to implement a mandatory rating and disclosure program. To date, eight other cities and two states (see box) have joined NYC in enacting benchmarking policy. Even more municipalities and utilities have sponsored voluntary benchmarking programs, often as precursors to ordinances. Some of these programs have resulted in significant energy savings. In 2012, an EPA analysis of 35,000 benchmarked buildings around the U.S. found that benchmarked buildings experienced, on average, 2.4% energy savings annually. Buildings that benchmarked for three consecutive years saw an average energy savings of 7% during that period, and buildings that started out as poor performers saved even more.[5] Other research suggests that

benchmarking is an important first step toward reducing energy consumption and an effective means to inform and motivate building owners to undertake energy efficiency improvements. In California, over half of the people who had benchmarked their buildings reported taking steps to reduce energy consumption.[6]

Early Adopters
Benchmarking & Disclosure Ordinances

Cities
- Austin
- Boston
- Chicago
- Minneapolis
- NY City
- Philadelphia
- San Francisco
- Seattle
- Washington, D.C

States
- California
- Washington

Learn more at: *BuildingRatings.org*

Benchmarking Tools – ENERGY STAR® Portfolio Manager

A benchmark is simply any point of reference against which something can be compared. So although an individual could use a single utility bill as a benchmark of their energy use, encouraging widespread benchmarking across a city or region requires more sophisticated benchmarking tools. Many such tools have been developed or are in development by private companies and state governments. They often normalize for factors that impact raw billing data, such as facility type, occupancy, weather, and operating characteristics. ENERGY STAR® Portfolio Manager, developed by the Environmental Protection Agency (EPA), is the tool specified by all existing U.S. commercial building benchmarking and disclosure policies.

Portfolio Manager is a free, secure, online interactive energy management tool that allows users to track and assess energy and water consumption of a commercial building or a portfolio of buildings. Many building types (e.g. office, hotel, grocery, data center, etc.) above 5000 square feet are able to benchmark their energy performance against similar buildings with a percentile rank 1-100 ENERGY STAR® score, and all buildings can determine their weather-normalized energy use intensity (EUI), a building's energy use per square foot.

Portfolio Manager was upgraded in 2013 to a user-friendly interface that offers many valuable features, in addition to providing ENERGY STAR® scores and EUIs. These include:

- Web Services (formerly known as Automated Benchmarking Services) – Portfolio Manager links to utilities allowing for the electronic transfer of energy data, reducing the time required by customers to benchmark, and facilitating ongoing customer monitoring of building energy use.
- Carbon Footprint Calculator – Portfolio Manager calculates a building's greenhouse gas emissions from energy use. The tool can also track avoided emissions from green power purchases or onsite renewable energy installations.
- Set Investment Priorities – Portfolio Manager has a built in financial tool that allows cost savings comparisons across buildings in a portfolio.
- Report Generation & Sharing – Portfolio Manager can generate ENERGY STAR® performance documents for each building, which can be easily shared. These reports may be used to:
  - Satisfy *LEED for Existing Buildings: Operations & Maintenance (LEED-EB: O&M)* requirements
  - Document performance in energy service contracts
  - Communicate energy performance to tenants, owners, and potential buyers or renters
  - Comply with local benchmarking or disclosure laws.

1-100 ENERGY STAR® Score

The 1-100 ENERGY STAR® score compares a building to other similar buildings across the country, using a combination of 12 months of energy consumption data and basic building information (e.g. square footage, occupancy, operating hours, and demand characteristics such as the number of personal computers or heating and cooling needs). A score of 50 represents median energy performance, while a score of 75 or better indicates that a building is a top performer and may be eligible for the widely recognized ENERGY STAR® certification. There are over 80 use types in Portfolio Manager that may be eligible to receive the 1-100 rating.

Although Portfolio Manager is the tool of choice, it has limitations. It can help users with a portfolio of buildings target lower performing buildings for investigation and improvement and, for single buildings, a benchmark can be valuable for identifying changes in performance over time. Like other tools, however, Portfolio Manager is not designed to identify specific energy-saving opportunities within buildings or evaluate the effectiveness of different building improvements. The ability to use Portfolio Manager to compare energy performance to similar buildings is hampered when process loads are present, especially in mixed-use buildings, such as an office building with a busy restaurant or a grocery store with a large on-site food preparation operation. In those scenarios, the additional energy use may reflect increased economic activity as opposed to inefficiency (see **Appendix E. Sample Outreach Materials** – ***Verity Credit Union*** and ***David Brower Center*** case studies).

Benefits of Benchmarking Programs for Local Governments

- Conserves resources
- Reduces greenhouse gas emissions
- Enhances electricity reliability
- Supports the local economy – particularly jobs related to energy efficiency
- Increases transparency of building efficiency
- Optimizes efficiency programs' ability to target high opportunity buildings
- Allows the value of efficiency to be reflected in property values and lease, vacancy, and capitalization rates.
- Improves the building stock and stimulates the economy with non-energy benefits resulting from improved lighting, comfort, and indoor air quality

There are two technical and data access hurdles. First, users need to access energy use data. Many utilities interface with Portfolio Manager through Web Services so that energy data can be loaded directly into a building's Portfolio Manager profile. Alternatively, utilities can provide energy information to customers in a spreadsheet format that integrates with Portfolio Manager. In any case, coordination with the utilities is critical to streamline the transfer of utility data and make participation easy for building owners.

The second challenge involves providing building level data when there are multiple meters and/or non-owner utility account holders within a single building. In the absence of a whole-building monthly data aggregation service, a building owner must get authorization for energy information from each account holder in order to aggregate it for benchmarking, and this can present a hurdle to participation.[7] If all the energy information for every meter in a building is not collected, the benchmarking information and ENERGY STAR® score will not be accurate.

There are other concerns about the time needed to complete an initial benchmark. It can take weeks for a user to gather the necessary authorizations and enter all the building and meter information needed to provide an accurate score or EUI, especially if multiple meters and/or utility account holders are involved.[8] Additionally, although the report generation and sharing features in the upgraded Portfolio Manager were designed to facilitate communication, the current system of adding contacts to a user account entails a multi-step approval process that adds time to the initial benchmarking process. Most users cannot benchmark a building in one sitting, especially if they are utilizing Web Services. Once contacts have been approved and the initial benchmark has been completed, changing or updating building information and generating reports is quick.

> *"Working with the utility provider to implement electronic data transfer services is crucial. In Boulder at this time, requested utility data is received in various formats that then must be transferred into Portfolio Manager by hand. This sort of transfer is doable for some buildings, but is labor intensive for large portfolios with numerous business tenants."*
>
> ~ Elizabeth Vasatka, Business Sustainability Coordinator, City of Boulder

> *"Ease of accessing utility data, especially for buildings with multiple tenants, is critical."*
>
> ~ Nicole Ballinger, Outreach Advisor, Energy Benchmarking & Reporting Program, City of Seattle

The Hard-to-Reach

Building energy benchmarking has emerged as a key policy tool to increase demand for energy efficient buildings and motivate energy performance improvements. However, despite the market transformation potential of this policy tool, participation in voluntary benchmarking efforts remains extremely low. While EPA reports that nearly 40% of US Commercial floor area has benchmarked with Portfolio Manager, this is primarily due to high participation rates among very large buildings. For example, when all buildings in California are considered, only 3.5 percent of commercial buildings have been benchmarked.[9]

Cities are made up of many small and medium buildings—in many cities 90% or more of commercial buildings are smaller than 50,000 square feet (See **Table 1** for examples). Office space often covers about a third of that commercial building area, and 90% or more of office space is Class B and C.* The dominance of small buildings, and Class B and C office buildings, requires attention to these sectors, but they are harder-to-reach than the larger Class A buildings.

Table 1. Hard-to-Reach Characterization of Buildings in Example Cities (based on 2013 CoStar analysis)

	Office space		**Class B and C**		**Buildings <50,000**	
City	% total commercial buildings	% total commercial space	% total office buildings	% total office space	% total commercial buildings	% total commercial space
Berkeley	20%	26%	100%	95%	96%	58%
Boulder	43%	41%	100%	90%	91%	55%
Oakland	15%	29%	98%	67%	94%	46%
San Jose	24%	32%	94%	67%	89%	37%

Resource Media, a firm that has worked extensively on outreach campaigns for cities with mandatory benchmarking programs such as Seattle and San Francisco, refers to this group as the "uninitiated". Owners and managers of smaller buildings generally require more comprehensive outreach and greater assistance to motivate them to action in energy efficiency. Typically, owners of small buildings do not have the onsite resources and staff common in larger buildings, such as a building engineer, to take ownership of the benchmarking process. They often rely on third party energy service providers to identify energy saving opportunities and undertake improvements. Furthermore small building owners are less commonly members of well-known professional organizations such as the Building Owners and Managers Association (BOMA), which has proven to be a critical partner in several outreach and recruitment efforts for both mandatory and voluntary programs (see ***Messengers***). Whereas Class A building owners and managers recognize the marketing value of benchmarking and its potential to result in lower vacancy rates or higher rents, the Class B and C building owners and managers interviewed were more skeptical that benchmarking would be of much value in this regard.

From the examples shown in Table 1, the smaller cities (Berkeley and Boulder) have more than 50% of total commercial area in buildings less than 50,000 square feet, so voluntary programs or mandatory policies should not ignore these "hard-to-reach" buildings. In the larger cities (Oakland and San Jose), on the other hand, big buildings (greater than 50,000 square feet) comprise more than 50% of the commercial area, so benchmarking goals may be easier to achieve without specifically engaging the hard-to-reach smaller buildings.

> *"Small building owners make decisions more like homeowners. They need more assistance to identify needs and implement work."* ~ Alisa Kane, Green Building & Development Manager, City of Portland

> *"Larger buildings and Class A buildings typically have more in-house resources to spend time figuring out Portfolio Manager, whereas smaller building owners find themselves reaching out for help."* ~ Jessica Handy, Director, LEED AP, CodeGreen Solutions

* We use CoStar definitions (http://www.costar.com/about/glossary.aspx?hl=C). Class A office buildings are extremely desirable investment-grade properties with the highest quality construction, materials, and systems, significant architectural features, abundant amenities, first rate maintenance and management; and above average rental rates. Class B and C are more utilitarian buildings with average management and maintenance. They depend chiefly on lower price to attract tenants and investors.

KEY TASK

Understanding Barriers

Understanding perceived and actual barriers is an important step in designing an effective program. Surveys and interviews can identify barriers and ways to increase participation. In addition, a survey itself can serve as an outreach tool to raise awareness about your benchmarking efforts.

Surveys can be conducted by city staff, interns, or outside parties through individual interviews or focus groups (both of which are time consuming), or paper/ electronic surveys (which typically have very low response rates). Surveys should address barriers, benefits (potential messages), resources (workshops, technical assistance, etc.), recognition, and professional networks (potential messengers). A sample survey is provided in **Appendix B**.

TIP

Relationships are the key to engaging hard-to-reach sectors. If you have pre-existing relationships with smaller building owners or have had success engaging these sectors in other city-sponsored programs, they will be more receptive to participating in a benchmarking program.

We found that the selection of respondents not only impacted survey implementation time, but also led to different feedback. Randomly selected respondents in the East Bay fell more broadly into the "uninitiated" category, having little or no prior benchmarking experience, while the pre-selected Boulder respondents had either worked with the City on other energy efficiency initiatives or were part of an ongoing commercial real estate key stakeholder group (though none had benchmarked before). Boulder respondents were far more receptive to both the survey experience and expressed greater overall motivation to benchmark. Even though Boulder respondents were owners and managers of small buildings, the rapport they have with the city made them easier to engage in benchmarking. A study in California found similar results.[10]

For the hard-to-reach smaller Class B and C office buildings, perceived and actual barriers to participation in a benchmarking program included:

- Time required to complete benchmarking process (gathering building and utility data, adding contacts, etc.)
- Learning how to use a new tool / ease of use
- Availability of technical assistance
- Getting approval from each tenant for energy use disclosure
- Figuring out multiple meters associated with each building
- Concerns about data reliability and low scores hurting market competitiveness
- Costs of hiring someone to benchmark buildings or costs of potential upgrades

Our survey results indicate that "time" is the biggest constraint. This may be the time to coordinate with multiple tenants, time to retrieve multiple meter information, or time to input the information into Portfolio Manager. Some perceive benchmarking as an additional burden or an intrusion of local government into business operations. Others expressed concern that benchmarking is redundant with other energy efficiency programs or local or state requirements.

TIME CHECK

In the California East Bay, survey respondents were found by randomly selecting small to medium class B and C office buildings from CoStar and cold calling the contacts listed. Implementing the survey this way took an average of two hours per respondent. Actual phone-time conducting the survey averaged only about 15-20 minutes per call. Most of the other time was spent trying to reach an actual respondent, documenting of the survey responses, and sending follow-up emails as appropriate. Survey implementation in Boulder and San Francisco took an average of 25-30 minutes per respondent. These cities called respondents with whom they had existing relationships (Boulder) or who had already participated in a benchmarking program (San Francisco). The method selected will influence your results. For example, the Boulder and San Francisco respondents were noticeably more aware of benchmarking and open to participating

Analyzing the Market

The first step in building market analysis is to gather information on your city's building stock. With building data, program designers can determine sectors, sizes, neighborhoods, and buildings to target for voluntary programs and roll out approaches or size classes for mandatory programs.

Building Data Sources

There are several sources of comprehensive building data – the county tax assessor database and commercial databases (e.g. CoStar, LoopNet, Dataquick, Property Shark, etc.) that compile detailed information about commercial buildings, primarily for real estate purposes. CoStar has been the commercial database used most widely for benchmarking market analysis. Neither tax assessor nor commercial data sets are 100% accurate, but for coarse screening and program design purposes both have advantages and disadvantages. See **Table 2** for comparison of CoStar and tax assessor data sets.

CoStar and county tax assessor data pick up slightly different buildings. The cities that have used both data sets conclude that for commercial buildings, CoStar captures more of the building stock (more square footage) and also provides substantially more information about the buildings. For example, San Francisco found 300-400 buildings in CoStar that were not identified in assessor data.

TIP

Partnering with a data consultant to draw upon the available data sources to provide an analysis of your building stock, can help you prioritize target buildings, sectors, or neighborhoods.

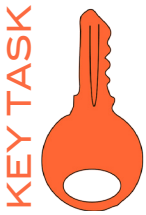
Other data sources are also available. The U.S. Department of Energy recently released the DOE Buildings Performance Database, an interactive database of energy use intensity for tens of thousands of buildings. This information can point to types of buildings with high or highly variant energy use intensity. Cross-referencing these building types with CoStar data specific to your city can help you prioritize target sectors. Additionally, CoStar provides latitude and longitude coordinates of buildings. This enables one to conduct geospatial analysis in mapping software to better understand which neighborhoods or business districts have high-energy savings potential. A data consultant can help you pull together data from an array of sources to gain hidden insights on patterns and trends in your city's building stock.

> *"We used both County Tax Assessor data and a summary compiled from CoStar and found challenges with both. The assessor information is not organized in a manner that is immediately useful for building energy efficiency purposes, and a large amount of time and effort was needed to manipulate and filter data. Ideally, it would be nice to hand off the raw data to a professional to organize into a meaningful data set. That said, it is worth the investment in CoStar, as it ultimately led to a data summary that was far more useful for conducting an inventory beyond square footage."*
>
> ~ Peter Nelson, Sustainability Coordinator, Salt Lake City

Table 2. Comparison of Building Data Sources

	County Tax Assessor	CoStar
Building Types	Covers all buildings (both residential and non-residential); however, it is important to note that assessor data is based on parcels, not buildings. Since buildings increase the value of property, they are included in assessor data.	Collects information on commercial, industrial, and multi-family buildings. There is enough information collected on building uses that this information can be easily configured to match Portfolio Manager building type categories.
Contact Information	Reliably collects information for the responsible taxpayer, whether a person or a LLC, and includes names and addresses.	Offers ownership (80% of buildings) and management contact information, including names, addresses, and phone numbers. Contact information is not always reliable.
Building information	Includes square footage, building age, and building use types.*	Provides information on building class and type, square footage, stories, address, closest public transit stop and walking time, building age (60% of buildings), date of renovation, latitude and longitude information (helpful for mapping/ geospatial analysis), LEED or ENERGY STAR® certification, and much more.
Limitations	Does not typically list the building class, nor does it include other building information provided in CoStar.	Does not reliably collect information on public buildings or owner-occupied buildings.
Cost of data	Data is available for free.	Data is available by county for a 12-month subscription fee, usually amounting to $2000-3000 for the year.
Format	Data is collected at a county versus city level. Data is not presented in a standard format making it more difficult to sort and filter.	Data can be pulled for the entire county or specific cities. Data must be exported in small batches of 500 buildings.

* Note: While some assessors provide a building use type, these do not necessarily match laymen's categories or those within Portfolio Manager. In Salt Lake City for example, categories had to be determined from the Assessor's notes on an individual basis. In Boulder, staff had to work with the Assessor's office to correlate use categories.



Building Inventory

Whatever you choose, it is useful to look at both number of buildings and total building area in the categories you select. Focusing on smaller buildings will require outreach to more buildings overall, but it may be easier to reach the building's decision maker. Focusing on larger buildings could result in benchmarking more total square footage, but this approach may come with a different set of challenges.

Different ways to classify the building stock:

- Building Type (multi-family, hospitality, retail, industrial, office, etc.)
- Building Size Category (e.g. 25,000 - 50,000 square feet)
- Building Class (Class A, B, or C)

Microsoft Excel allows for data manipulation, and it is fairly straightforward to create histograms showing the distribution of buildings according to these classifications. Further analysis can tell you the specific number of buildings or size thresholds that will meet your goal. For example, analyzing Berkeley's CoStar building data reveals that the city could benchmark 75% of its commercial office space if all 87 office buildings greater than 15,000 square feet participated. Or the city could benchmark 50% of its total commercial space by requiring that all commercial buildings greater than 25,000 square feet complete the benchmarking process, and such a policy would only impact 169 buildings.

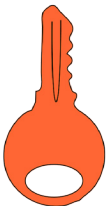
Depending on your goals, which could vary from raising general awareness to decreasing greenhouse emissions, other criteria to consider include:

- Energy Use Intensity (EUI) – Which buildings have the highest energy demand? For commercial buildings, these typically include convenience stores, groceries, and hotels (buildings with refrigeration needs).
- Neighborhoods or Business Districts – Are there regions in your city that have high concentrations of buildings in your target market?
- Building Age – Energy opportunities vary by building vintage. Older buildings may have outdated equipment, presenting opportunities for investments in energy efficiency, but new buildings often have higher energy demand because of their more technologically advanced systems.
- Owner Concentration – Who are the largest building owners and property managers in your city?

"Where a law applies to building owners, local property records from an Assessor-Recorder are the bedrock for formal notifications and tracking compliance. However, assessors track properties, not buildings, so other data sources such as commercial real estate databases were necessary to build a clean dataset of buildings. No single resource was perfect."

~ Barry Hooper, Green Building Program Coordinator, San Francisco Department of the Environment

KEY TASK



Data Analysis

As described above, for voluntary programs targeting the commercial sector, CoStar proves a useful and user-friendly source of building data. CoStar data can be easily exported into Excel for manipulation. Templates are included in **Appendix C**. Since data analysis may be time consuming or entail additional costs, some cities choose to forgo this step and design a program around obvious leads, irrespective of their building stock. For example, in the Arlington Green Games, staff chose to work with highly visible property management firms with a high concentration of buildings. These firms were easily identifiable without CoStar or other data analysis. For its voluntary program, Berkeley targeted LEED buildings and real estate companies who are civically engaged and have relationships with city staff (see ***Strategy***).

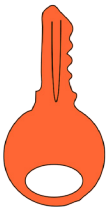
TIME CHECK

For a small to medium size city, such as Berkeley, it probably takes an hour to download data from CoStar once you are familiar with the system. It takes another hour to match building uses to the ENERGY STAR® Portfolio Manager categories (for someone familiar with portfolio manager). For someone proficient with Excel, it would take an additional several hours (5-10) to manipulate and analyze the data to present it as it appears in the template (Appendix C). Allow more time to graph or chart it.

"When we initially got the CoStar data set we didn't have the time to analyze it carefully. Nor did we use size to target a specific sector in the first round of our Energy Smart program, but once the buildings were sorted by size, type and ownership, the CoStar data became really useful for targeting and prioritizing outreach in our second round. Having the template was very helpful. Obviously, the data becomes extremely useful when determining the thresholds for a mandatory policy."

~ Billi Romain, Sustainability Coordinator, City of Berkeley Planning Department

KEY TASK



Setting Goals

Once you have an understanding of your city's building stock, you can more easily set realistic goals and define metrics for your program. Goals and metrics should guide your outreach strategy and evaluation plan. These metrics may include:

- Number of overall participating buildings or building owners – Consider targeting easier to reach, more visible sectors first to build momentum.
- Number of participating buildings in a particular class or age category – If you have already successfully engaged larger, more visible buildings, now may be the time to target the hard-to-reach, smaller office buildings. However, working with this sector will prove far more challenging, requiring more resources in terms of outreach and technical assistance. A trickle down approach is effective. We recommend engaging this sector only after you have significant momentum with your more visible buildings.
- Square footage benchmarked – Consider targeting larger buildings or building owners with large portfolios. Larger buildings have more potential for capturing the bulk of energy consumption, as consumption is commensurate with square footage, not number of buildings.[11]
- Annual program improvement – Set a goal of improvement. Your metric could be participation rates, such as number of buildings or total square footage, or improvements in benchmarking scores of participating buildings from year to year.
- Action taken* – This could include the number of audits conducted, behavioral changes, or actual energy retrofits or retrocommissioning projects.
- Energy savings and greenhouse gas emissions* – This could include the annual reduction of kWh of electricity, natural gas therms, or metric tons of CO^2 (avoided emissions) from measures implemented as a result of benchmarking.

TIP

Keep in mind the phase of your program when choosing metrics. Newer benchmarking programs may want to raise general awareness, and simple metrics, like participation rates, are adequate for evaluating success. More advanced programs, implemented as part of climate action plans, should utilize more complex metrics that quantify energy savings or greenhouse gas emission reductions.

"The key to success is to provide one-on-one time and attention. Be friendly, open and available, and very visible."

~ Kelly Zonderwyk, Energy Program Specialist, Arlington Initiative to Rethink Energy

"Strive for measurability. Push participants to benchmark before, during and after the program so they can see the difference. Try to equip them with some kind of operational and maintenance best practice advice. If possible, help them to identify low- and no-cost improvements."

~ Sarah Hall, Sustainable Real Estate Manager, Commercial Sector, Northwest Energy Efficiency Alliance

Designing Your Program

Strategy

Of the eleven cities and states with mandatory commercial benchmarking policies, five* exclusively target buildings larger than 50,000 square feet. Most policies implement a phased approach targeting larger buildings first. Larger buildings are associated with well-identified professional networks that facilitate outreach, and they often have onsite resources and building management staff to lead the benchmarking process. Larger buildings, although comprising only a small percentage of total buildings in any city, represent a large percentage of total floor area. In essence, larger buildings provide a more favorable outcome to effort ratio.

Building Benchmarking Low Hanging Fruit

- LEED and ENERGY STAR® certified buildings
- Class A buildings
- Public sector buildings
- Buildings greater than 50,000 square feet
- Schools
- High profile buildings

For voluntary programs, we recommend a phased approach, where the hard-to-reach sector is engaged after there has been success with larger and higher profile buildings (see Low-hanging Fruit). For example, Berkeley, which only has one Class A building and has many small buildings, focused efforts on widely recognized owners and buildings, as well as historic and architectural landmarks in the city. Once these key players signed on, others more readily followed suit. Other strategies involve working with property management firms that represent a large number of buildings. Each of the following sections will explore various program design considerations.

"First, reach out to those buildings that already have benchmarked and are ENERGY STAR® certified and bring them in as champions. They are great peer examples when reaching out to similar buildings in your city to encourage them to benchmark."

~ Nicole Ballinger, Outreach Advisor, Energy Benchmarking & Reporting Program, City of Seattle

"Targeting a particular sector by type of business or geographic area, such as all hotels or all downtown buildings, is an effective strategy to engage property owners and drive up participation rates."

~ Billi Romain, Sustainability Coordinator, City of Berkeley Planning Department

"Engaging the big guys doesn't necessarily engage owners of the far larger number of small buildings, but it builds a foundation. Its best to start with the largest buildings first."

~ Barry Hooper, Green Building Program Coordinator, San Francisco Department of the Environment

* Chicago, Minneapolis, Philadelphia, New York City and Washington DC.

KEY TASK

Program Types

Voluntary programs range from focusing on a particular building sector, such as offices, to broadcasting the program to all sectors, sometimes including residential. Some voluntary programs focus exclusively on energy benchmarking (e.g. Berkeley and Boulder), while others use benchmarking to motivate energy saving actions (e.g. Portland, Seattle, and Boise). Still others, like Chicago, Houston and Arlington, have focused on a suite of sustainability initiatives (benchmarking, energy, water and waste reduction, and transportation). The target sector of each program also varies. Programs that focus only on benchmarking typically engage building owners and managers, while those focused on a broader set of green practices and behavioral change also target tenants (see ***Appendix A. Voluntary Programs At-a-Glance***).

TIP

HARDEST-TO-REACH

Seattle and San Francisco identified the hardest-to-reach in their mandatory programs as the independent, non-local, or LLC/trust owners, who are often engaged only through outreach to their major tenants. for voluntary programs it is very challenging to engage such building owners.

Voluntary benchmarking programs have also been used by many cities as a precursor to mandatory commercial building benchmarking and energy disclosure ordinances. Almost all cities that have implemented mandatory benchmarking policies started with a voluntary program for one or two years.

Voluntary programs are effective for: 1) initiating outreach to stakeholders to gain support for mandatory policies; 2) learning more about your city's building stock and energy upgrade potential; and 3) developing relationships with building owners and recognizing early actors who can serve as effective spokespeople and champions for the mandatory program.[12]

Some cities, such as Chicago, will continue to implement voluntary programs even after rolling out ordinances. San Francisco, given greater resources, expressed that it too would have implemented additional rounds of its ***24/7 Energy Challenge***. Berkeley, which has an ordinance under development, hopes to continue its ***Energy Smart Awards*** recognition program to accompany a mandatory policy. If an ordinance requires disclosure of energy use and a building audit, as in the case of San Francisco, a voluntary component, such as a friendly competition for improved benchmarking scores, can encourage building owners or occupants to actually invest in energy saving activities (see ***Incentives***).

> *"Benchmarking is a foundational practice. When we launched the Portland Office Showdown in 2007, the first iteration of what later became the multi-faceted Kilowatt Crackdown, we focused just on benchmarking."*
>
> ~ Sarah Hall, Sustainable Real Estate Manager, Northwest Energy Efficiency Alliance

> *"Many of the participants in our voluntary Green Office Challenge (GOC) program later became supporters of our benchmarking ordinance. About 85 organizations wrote letters on behalf of the ordinance because they understood the value of energy savings from their prior experience in the GOC."*
>
> ~ Aaron Joseph, Deputy Sustainability Officer, Office of the Mayor, City of Chicago

Recognition Vs. Competition

In our survey of hard-to-reach property managers and owners of class B and C buildings smaller than 50,000 square feet, respondents in all regions overwhelming indicated a preference for recognition programs (as opposed to competitions), where all buildings that participate are recognized regardless of scores earned. Class B and C building representatives may not want to compete because they view the risk of losing to be much greater than the likelihood of winning; that is, they don't think their buildings will exhibit exemplary energy performance. Thus, recognition, for the hard-to-reach, seems to be a greater motivator than competition.

Incentives

Voluntary benchmarking programs typically involve some sort of incentive to encourage building participation. While financial rewards for benchmarking alone are not recommended,[13] suggested incentives include:

- **Eco-Labeling** – Benchmarking is a necessary pre-requisite for either ENERGY STAR® or LEED certification. Studies have shown that eco-labeled building command higher rents and have lower vacancy rates than average.[14]
- **Rebates** – Benchmarking is a required activity to qualify for utility rebates for energy retrofits (e.g. Houston and San Diego Gas and Electric).
- **Recognition** – All participants receive formal recognition by the city (e.g. Berkeley and San Francisco)
- **Competitions** – Several cities (e.g. Arlington, Boise, Chicago, Houston, Portland, San Francisco and Seattle) have implemented very successful challenges, contests, or "friendly" competitions with multiple award categories. These efforts are typically more resource intensive. Challenges can be as simple as recognizing the first 20 buildings to participate, or in the case of Houston, can offer over 30 award categories. The ***EPA's ENERGY STAR® Guide to Energy Efficiency Competitions for Buildings & Plants*** is a resource for developing competition programs.

Recognition Levels

Whether running a simple "participation" program or a competition, recognition is key. Whereas recognition programs formally acknowledge the participation of all participants through a website, newspaper ad, and/or event with the mayor, competitive programs determine award categories and recognize the top achievers. The standard categories – Best in Class, Most Improved, and Most Efficient – are intended to drive up demand for efficiency improvements. These categories can be further broken down by building size classes. Additionally, award categories can be set for different target audiences, such as owners and tenants. Houston also added an award category for promotion partners, incentivizing participants to refer peers to the program.

Although award categories can be an effective way of recognizing certain model behaviors, it is unclear how much effect awards have over straightforward recognition in encouraging program participation. In fact, promoting awards may have a negative effect for hard-to reach-buildings with little or no experience with benchmarking and no track record with energy savings. It may be that multiple awards in multiple categories are more effective in large cities, like Houston, which had 12 award categories, most with three tiers (1st, 2nd, and 3rd place), but less effective in smaller cities. Some programs, like Arlington's, blend the two, creating award categories of Gold, Silver, Bronze, and Recognition for all participants. Most competition programs have at least four award categories with three places per category, and offer awards for both most improved and highest performing buildings.

Chicago sees the value of ongoing recognition. During its Green Office Challenge (GOC), awards were offered on a monthly, as well as cumulative basis, providing opportunity to recognize participants along the way, which helped to sustain momentum throughout the course of the GOC.

The hard-to-reach property managers and owners interviewed indicated that all recognition was positive. Of the following no single type of recognition emerged as more valuable than others:

- Listed on City website
- Listed on Chamber of Commerce or other local business association website (e.g. East Bay Environmental Network, BOMA, Buy Local)
- Window decal
- Local newspaper ad or story
- Recognition event with City Mayor or other dignitary

Houston, which had success with both high rises and small buildings, highlights the importance of mayoral recognition. During the Houston Green Office Challenge, the mayor was involved at the launch, in ongoing promotion, and at the awards ceremony.

Program Duration

A key criterion of successful programs is a time limit. Because effective programs demand significant outreach and dedicated staff resources, four to six months is a short enough period to provide and maintain the support required and a long enough period to effectively publicize the program, solicit participation, and see results.

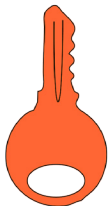
For programs that encourage an array of green business practices (benchmarking, energy, water, and waste reduction, etc.), or more intensive energy reduction goals, one year is the standard time period, with enrollment taking place in the first few months and tracking progress of participating businesses taking place over the remaining period. Better Bricks, which has run ***Kilowatt Crackdown*** programs in Seattle, Portland and Boise, actually involves participants over a 16 month period, with enrollment prior to the official launch and awards given after the one-year implementation period. Rounds 1 and 2 of Chicago's Green Office Challenge (GOC) lasted for a year, but Round 3 was shorter. In Round 3, participants could enroll at any time during the Challenge, and earn monthly recognition for their accomplishments as Chicago's platform was continuously adding new activities.

> *"Mini-competitions amongst business associations pitting one business district against another may also encourage participation. Competitions could either be for the most buildings and/or square footage benchmarked."*
>
> ~ Alisa Kane, Green Building & Development Manager, City of Portland

Overcoming Barriers

In developing an outreach plan, there are several key components to consider: developing content, engaging partners, conducting outreach, and providing training and technical assistance.

KEY TASK



Messages

Most people, except perhaps professional building managers, do not spend much time thinking about therms and kilowatt hours, and saving energy is not the end goal for many building owners and occupants. Instead saving energy is a means to a different outcome such as enhanced productivity, improved comfort, and cost savings. Effective messaging about a benchmarking or energy efficiency program will emphasize the non-energy benefits of a proposed activity.[15]

For tenants this might include:

- Cost savings (reducing utility bills or controlling operational expenses)
- Environmental benefits (GHG reductions)
- Indoor air quality (better HVAC systems)
- Increased worker productivity (better lighting, increased comfort)

For owners, this might include:

- Cost savings on full-service or owner-occupied buildings
- Higher occupancy rates, rents, and property values
- Enhanced capitalization rate of energy efficient and eco-labeled buildings

Benchmarking Pays Off

According to a national study in 2008 by the CoStar Group, rental rates in ENERGY STAR®-rated buildings command a $2.40 per square foot premium over similar buildings and have 3.6% higher occupancy rates. Report authors also found that ENERGY STAR® properties sold for an average of $61 per square foot more than peers without the ENERGY STAR® certification.

In addition to talking points or messages, case studies and testimonials are very effective at conveying the value of benchmarking in language and terms relevant to the decision maker. While case studies can demonstrate details about costs and benefits, simple testimonials from other participants can be very persuasive. Peer advocates or champions may also be reliable positive references for the program.

Research indicates that business and building owners are primarily interested in measuring how they compare to their neighbors and how they improve over time.[16] Portfolio Manager assigns ratings based

> *"Frame benchmarking as an opportunity with a focus on benefits (cost-savings, recognition, etc.). Vivid and actionable messaging resonates best."*
>
> ~ John Caner, CEO, Downtown Berkeley Association

> *"Any sustainability initiative should include education and messaging about cost savings."*
>
> ~ Sharon Fredlund, Executive Director, BOMA Silicon Valley

The Value Proposition

Interviews with the real estate community, as well as business associations such as BOMA, Chamber of Commerce, and Business Improvement Districts, underscore cost-savings, bottom-line benefits, and return on investment (ROI) as messages that truly resonate. Compliance also gets people's attention.

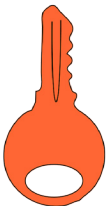
peer groups identified through the national Commercial Building Energy Consumption Survey (CBECS). The EPA can normalize for weather and unique building characteristics., but to qualify for a 1-100 score, buildings must meet certain size and type criteria. All buildings (regardless of type or size) can benchmark against themselves over time and this can be a useful selling point, especially for those buildings that don't qualify for an ENERGY STAR® rating.

Our survey results indicated that no single message was particularly effective in soliciting participation of the hard–to-reach, so it's best to be able to articulate multiple benefits. Many respondents mentioned cost savings and ROI (of energy efficiency investments) as the primary drivers for tenants and owners alike. Some respondents felt that eco-labeling and "green" recognition were of value in their particular city.

> *"Messages that would resonate with my members include: Comply with law; Save money or make money; Certify yourself as green or environmentally sound. Give them something to brag about."*
>
> ~ Paul Junge, Vice President, Local Chamber Relations, California Chamber of Commerce

> *"Semantics are important. BOMA can provide insights on how to frame a municipality's green efforts so that messaging will be better received by BOMA members."*
>
> ~ Stephen Shepard, Executive Director, BOMA Oakland/East Bay

KEY TASK



Messengers

Although it makes sense to solicit the support of business alliances, chambers of commerce, and community based organizations to conduct outreach, keeping such partners up-to-date and on-message can be an enormous outreach task in itself. Every program implementer we interviewed underscored the importance of strategic partnerships for outreach. Messages are often better received when delivered from those within the real estate community or other business associations, than from the local government. Minimally, messengers should be engaged to promote efforts on their websites and e-newsletters simply by sharing city program collateral. Interviews from potential partners suggest that case studies, pictures, newsletter blurbs, reports, and twitter feeds could all be useful to disseminate through their existing marketing avenues.

Almost all cities create their own marketing material and then work with their partners to tailor the message for each unique audience. For example, an Oakland Business Improvement District suggested that it was worth mentioning, (in addition to bottom line benefits for tenants and owners) that benchmarking would provide positive PR to build on Oakland's reputation as one of "America's Greenest Cities." Such positive perceptions drive business, and generating business is the main concern of its members.

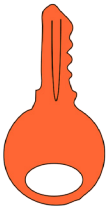
> *"Partnership with the local BOMA chapter is essential. There is a healthy tension between cities and the real estate community. Team up with a trusted private sector ally, such as BOMA (or Chamber of Commerce if BOMA does not have a local chapter). Partner to design the program and enroll participants."*
>
> ~ Sarah Hall, Sustainable Real Estate Manager, Commercial Sector, Northwest Energy Efficiency Alliance

> *"Don't do it alone. Create strategic partnerships. No one wants to hear what the city wants you to do. Avoid the big brother image. Enlist BOMA or other partner as a trusted messenger."*
>
> ~ Alisa Kane, Green Building & Development Manager, City of Portland

The ***Arlington Green Games*** is a noted exception to the general strategy of engaging professional associations. Arlington partnered with a few large property management firms, who hosted information sessions in their buildings for tenants. Then, through one-on-one outreach directly in these buildings, staff were able to enroll a large number of participants.

> *"One of the best ways to get the word out to building owners has been to write a blurb for the BOMA newsletter. It gets read."*
>
> ~ Barry Hooper, Green Building Program Coordinator, San Francisco Department of the Environment

KEY TASK



Marketing and Promotion

A clear, compelling, and informative website for a recognition or competition program is necessary to provide legitimacy and support outreach efforts. A website alone is not an effective marketing or outreach tool, but it is a crucial element of an outreach strategy. Chicago's and Houston's *Green Office Challenge*, the *Kilowatt Crackdown*, and *Arlington Green Games* are good examples of well-developed and colorful websites. However Berkeley's Energy Smart Awards program was still successful with a far simpler informational website.

TIP

Identify "trusted messengers" and business networks important to your audience. Many in the hard-to reach sectors may not have memberships in BOMA. Chamber membership is primarily comprised of tenants. The regional chapter of the Green Buildings Council also emerged as a key partner in outreach efforts (e.g. Chicago and New York City).

Hard-to-reach building owners and program implementers identified other potential messengers, including:

- Business Improvement Districts (BIDs) or neighborhood associations. relationships with PBIDs (Property Based Improvement Districts) can be especially valuable, as they represent all building owners in a particular neighborhood through tax levies.
- Institute of Real Estate Management (IREM)
- International Facility Manager Association (IFMA)
- National Association for Industrial and Office Parks (NAIOP)
- regional or local associations in each market sector (e.g. hotel, grocery, medical office, restaurant)
- regional business journals

Beyond a website, promotion tactics include direct mail, earned or paid mass media, and social media campaigns. None of these tactics alone has proven effective at driving participation in commercial energy efficiency programs.[16] Research shows that general messaging about benchmarking and energy efficiency does not resonate with people as much as specific information about their particular building. Through direct mail, program sponsors can give potential participants a simulated benchmarking score, with the hopes that this will pique interest in determining their real score, but it's unclear whether this is effective.

Mass media like billboards, mass transit advertisements, radio, and TV ads are expensive and, by design, do not allow for targeting messages to a particular audience. Opower and Facebook have run social media campaigns to encourage energy use competitions in the residential sector, but businesses typically use social media for promoting their services and it's not clear they would look to social media for information about their building's ecological footprint.

Cities have used other outreach methods to enlist participants. For example, for its pilot benchmarking program, Boulder targeted building owners and managers who had participated in other local energy efficiency initiatives, such as its ***EnergySmart*** program which offers advice and incentives. (***EnergySmart*** participants were already knowledgeable about energy efficiency and were eager to identify other savings potential through benchmarking.) ***EnergySmart*** Advisors identified leads for the benchmarking program pilot. In addition, city staff promoted the program in presentations to realtor and broker associations.

Houston's ***Green Office Challenge*** (GOC) utilized a website, newsletter, and mayoral promotion. Staff attended many meetings to engage the leadership of their seven Management Districts, who then reached out to their memberships (see ***Messengers***). Staff reached out beyond the traditional Downtown Class A towers and had great success engaging smaller office buildings through these Districts.

TIP

Utilize internal resources, such as other city departments and utilities. San Francisco partnered with its utility, PG&E, whose account representatives conducted outreach to customers on behalf of its *24/7 Energy Challenge*.

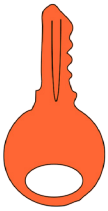
Others mention the value of cross promotion with other green initiatives. For example, during the cross promotion of Chicago's ***Green Office Challenge*** (GOC) with its ***Bike Commuter Challenge*** (especially during Bike to Work Week), registration in the GOC spiked dramatically. The ***Retrofit Chicago*** program, which focuses on building energy efficiency, also promotes the GOC, with its emphasis on tenants, as a value-added plug. Tenant engagement is needed to fully to capture the savings potential. Whereas upgrades and retrocommissioning are key energy savings investments, occupant behavior can drive down energy use at no cost.

> *"We went to the community versus asking them to come to us — breakfast, lunch, receptions, informational meetings, and one-on-one."*
>
> ~ Laura Spanjian, Director, Office of Sustainability, Mayor's Office, City of Houston

> *"Small businesses don't typically come to Downtown events. Small business may be very passionate about sustainability, and they care, but they engage differently."*
>
> ~ Aaron Joseph, Deputy Sustainability Officer, Office of the Mayor, City of Chicago

> *"Our research suggests that reading or hearing about local buildings that have benchmarked and reduced energy use as a result helps owners or managers to envision the same success for their buildings"*
>
> ~ Gregory Heller, Program Coordinator, Resource Media

KEY TASK



Training

Training can be provided in various formats such as workshops, webinars, one-on-one support, and websites. Our survey of those with no prior benchmarking experience indicated that no single method is preferred. Many people mentioned the convenience of online training, especially where time is a constraint, but others still favor learning in a workshop-style environment. Many liked the idea of one-on-one assistance either in person or over the phone. A majority of respondents in San Francisco, who had all benchmarked previously, also mentioned the value of one-on-one assistance. San Francisco's experience with its ordinance indicates that larger buildings with dedicated building staff often understand the value of benchmarking independently, whereas smaller buildings need more support.

Online training can be provided at no cost by cities, and the EPA offers ongoing webinars via its ENERGY STAR® site. Local utilities may also provide free workshops, online training or help (e.g. Pacific Gas & Electric Company).

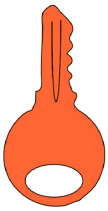
Some utilities even offer differentiated training by level of experience, target audience, or phase (e.g. PG&E's *You Have Benchmarked Your Building, What's Next?*). In California, reports provided by the utilities summarizing workshop evaluations showed that workshops uniformly received high ratings and very positive feedback from attendees. Most importantly, workshops have been effective in providing participants with the skills and knowledge to independently benchmark their own or their clients' buildings and seem to increase overall participation. Hosting frequent workshops tailored to a specific facility or industry is another option. For example cities can work with BOMA chapters that are already providing in-house workshops to its members (e.g. Oakland/East Bay and Silicon Valley).

Voluntary program implementers outside of California suggest making workshops into fun, networking opportunities, especially for programs engaging tenants. During the ***Arlington Green Games***, for example, workshops were offered in varied formats, times, and locations on an ongoing basis throughout the yearlong competition. Also, Arlington offered training at participants' places of work, rather than asking them to come to a central location. Each of their workshops had catchy titles, such as *Mingling Monday*, *Time-out Tuesday*, and *Webinar Wednesday*. They included breakfast networking and brown bag lunch workshops, as well as special tours and events.

> *"The one-day training we offered was great, but it had limited participation. And of those who attended, most still needed one-on-one help to complete the benchmarking process."*
>
> ~ Billi Romain, Sustainability Coordinator, City of Berkeley Planning Department

> *"Take advantage of any free resources. Tap your internal resources from other city departments, such as Planning, which can provide benchmarking information along with permitting information. And, definitely work with property management firms."*
>
> ~ Nicole Ballinger, Outreach Advisor, Energy Benchmarking & Reporting Program, City of Seattle

KEY TASK



Technical Support & Resources

Resources, such as free technical support, are critical to a successful program. In fact, program implementers underscored the importance of providing some sort of technical assistance, whether through a help-desk or through one-on-one assistance. If cities have to choose between offering workshops or a help-desk, the latter is recommended. Seattle also uses its help-desk for outreach purposes. When help-desk staff members are not providing technical support, they are calling building owners to remind them about upcoming compliance deadlines.

In addition to providing training or technical assistance to complete the benchmarking process, offer resources on what to do after benchmarking. As the ENERGY STAR® score in itself does not provide guidance on how to improve a building's energy use, it is important to tighten the link between benchmarking and action.

These resources may include:

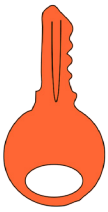
- General information on what to do after benchmarking – "Next Steps"
- Follow up by utility-sponsored energy efficiency program that can perform energy audits and/or rebates and incentives for retrofits or retrocommissioning
- A list of consultants that could conduct audits or retrofits.

> *"Make the process simple, and communicate it. Show us the way. The municipality can help by providing training and resources, such as a website and two-minute tutorials. If benchmarking is required by an ordinance then technical assistance is definitely needed for those who are not tech savvy, and online resources should be offered for those that are tech savvy."*
>
> ~ Don Rogers, VP Property Management, CIM Group

> *"It would be a great value to customers if city websites provided links to quality, vetted providers."*
>
> ~ Ty Clark, PE, Certified Energy Manager, Principal, Bay Efficiency

> *"Provide free technical support and incentives so there is value added to the benchmarking."*
>
> ~ Alisa Kane, Green Building & Development Manager, City of Portland

KEY TASK



One-on-One Engagement

The most effective information sharing and promotion strategy is one-on-one engagement with building decision makers. Credibility is key, so supplementing one-on-one outreach with an informative website, promotional activities as described above, and reference materials (like fliers or case studies) is important. There are multiple options for delivering one-on-one outreach. Outreach from city staff is effective, but bandwidth limits the scope and depth of outreach services that staff can provide. Students or recent graduates, when trained and managed through a formal internship program, may do a good job of conducting initial outreach. Boulder implemented a pilot program with "Energy Coaches," who were building professionals seeking to augment their skills. They spent an average of seven hours per building, providing information and technical assistance on benchmarking, and working with owners and tenants to access energy use data. Both Coaches and building owners/tenants reported positive experiences with this approach; however, it took extensive coordination.[19]

Energy service providers or vendors see little role for themselves in voluntary programs, whereas an ordinance creates a strong market for private sector services. In New York, 80% of the benchmarking data was compiled by consultants, and San Francisco estimates that at least half of the benchmarking is completed by professional firms. In cities with ordinances, businesses in the energy efficiency sector are growing their client bases and hiring staff. It is unlikely, however, that the hard-to-reach would pay for private benchmarking support in the context of a voluntary program. In San Francisco, private benchmarking support services start at around $500.

As service providers do play a significant role in mandatory programs, it is important to engage them early on in the development of an ordinance. Programs seeking outreach support from vendors need to invest extensively in outreach and training to vendors, and this requires ongoing investment and coordination to make sure their messaging is aligned with the goals of the program.[20]

Selling is Key to Increasing Participation[21]

Sellers	Tellers
Solve problems	Give information
Gain conviction	Leave the decision to the prospect
Translate features into benefits	Present features
Risk rejection	Avoid rejection
Win by closing sales	Try to win by showing knowledge
Use emotional and rational levels	Use rational level
Proactive	Reactive
Accept uncertainty as the norm	Want structure and stability
Intensify needs and wants	Identify needs
Go to everyone	Want everyone to come to them

To their detriment, energy efficiency programs, in general, have undervalued a sales personality relative to technical skill when hiring staff. People who approach energy efficiency as a service to sell gain greater participation than those who assume the need or desire for energy efficiency already exists. Although technical familiarity is important for credibility, moving people to participate in benchmarking and energy efficiency programs requires outreach staff who are "sellers" rather than "tellers." Sales experience or salesmanship personalities are critical attributes of outreach staff.[21]

"Dedicate staff time — it's a very labor intensive undertaking. People need resources to help them through the process. Keep communication open. Staff provided one-on-one help and training over the phone or in person. We would meet with participants at their place of business and walk them through Portfolio Manager or assist as needed."

~ Laura Spanjian, Director, Office of Sustainability, Mayor's Office, City of Houston

"The success of any rating and reporting program depends on engaging businesses and building owners in a way that is easy and customized to fit their needs. An effective method is to partner with existing energy efficiency programs that provide advisor services that can deliver ongoing one-on-one consultation services that guide them through the process of benchmarking."

~ Elizabeth Vasatka, Business Sustainability Coordinator, City of Boulder

Case Studies

City of Berkeley 2013 & 2014 Energy Smart Awards

Berkeley implemented small, but successful, voluntary recognition programs with a very limited marketing budget without a direct mail campaign. They created a website, print and digital collateral, engaged trusted messengers such as the Chamber and Downtown Association (PBID), and partnered with the neighboring cities of Oakland and Emeryville to increase participation. Additionally, the Energy Smart Awards program partnered with the East Bay Environmental Network (EBEN) and Oakland/East Bay BOMA, which jointly hosted the recognition event. City resources included a 0.4 FTE staff member who provided significant one-on-one outreach and technical assistance over 6 months. In Berkeley these efforts resulted in participation by 30 owners or managers who benchmarked 150 buildings (some owners had large portfolios) and the development of closer working relationships with key stakeholders in the commercial building sector.

Arlington Green Games

The success of the 2011 Arlington Green Games illustrates the power of well-designed and supported marketing and training campaigns, coupled with one-on-one outreach. The yearlong competition focused on large office buildings and included both property managers and tenants. The Games used a scorecard approach where participants earn points for action taken (evidence of improvement) in multiple categories, including energy, water and waste reduction, as well as tenant behavior.

Arlington developed its own pre-recorded webinars to guide participants through Portfolio Manager, instead of relying on the EPA versions. Ongoing workshops that provided networking opportunities were offered in various formats, times, and locations, addressing a range of green office practices to help participants garner points on the scorecard. Additionally, participants had access to one-on-one assistance in person, over the phone, or via email.

Outreach efforts involved a significant in-person investment and boots-on-the-ground approach to build a connection with participants. Two staff members met personally with every participant initially and then again later on during the year. A lot of time was spent away from the desk, hanging out in office building lobbies, drinking coffee, and participating in happy hours and other networking events. The latter were particularly appealing to the younger professionals who were interested in sustainability but also in networking opportunities. These efforts resulted in higher than expected participation outcomes. The Games sought to enroll 50-100 participants but ultimately registered 170.

A second round was launched in 2013 offering three separate competitions for 1) restaurants; 2) retailers; and, 3) apartments and condos. The Games are designed to be sector specific, with marketing materials, workshops, and other resources tailored appropriately. Arlington plans to re-launch in 2014 with an emphasis on smaller office buildings.

City of Houston, 2011 Green Office Challenge

Houston had remarkable participation in the first year of its awards program - 375 buildings covering over 75 million square feet, with 176 buildings achieving LEED status. Much of that success can be attributed to the considerable resources available through the Bloomberg Mayors Challenge and partnerships with ICLEI and the Clinton Climate Initiative. The resources allowed the program to hire skilled outreach staff, develop a sophisticated website, offer over 30 award categories, focus on offices, create different messages for building owners and tenants, and offer financial incentives for energy efficiency improvements (with set asides for Class B and C office space). Outreach began the year before the program launch, and key stakeholders were engaged to provide feedback on program design. Houston worked with over 25 partners, and relied heavily on neighborhood management districts to enroll members, many of which represented the smaller Class B and C office space.

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